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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,809	04/18/2000	Yoshimasa Furuike	1-31	2666

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EXAMINER

LY, ANH

ART UNIT

PAPER NUMBER

2172

DATE MAILED: 07/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,809

Applicant(s)

FURUIKE, YOSHIMASA

Examiner

Anh Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 7, 13, 16, 18, 25 and 36 are objected to because of the following informalities:

The third line of claims 7 and 25, "each of the attribution record groups; and" replace with --each of the attribution record groups.--

The line 13th of claims 13 and the line 14th of claim 16, "when searching means finds" replace with --when searching means finds--

The first line of claim 18, "according to claim 8," replace with --according to claim 16,-- and

The first line of claim 36, "according to claim 26," replace with --according to claim 34,--

Appropriate corrections are required.

2. Claims 1-36 are pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-12 and 19-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,393,149 issued to Friederich et al. (herein Friederich) in view of US Patent No. 5,748,780 issued to Stolfo.

With respect to claim 1, Friederich discloses attribution record group, according to attributions defined in the database, and for making plural attribution record groups corresponding to each of the attributions; data compressing means for compressing the attribution record groups in a unit of each of the attribution record groups; and file forming means for combining each of the attribution record groups, which are compressed by the data compressing means, and for forming a database file (abstract, col. 1, lines 8-59, col. 2, lines 1-61, col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54).

Friederich does not explicitly indicate, "classifying data which is requested to be stored into a database."

However, Stolfo discloses classified segments for the database to be accessed as claimed (col. 16, lines 50-67 and col. 17, lines 1-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Friederich with the teachings of Stolfo so as to have a database managing apparatus having compressed and decompressed data and searching data because the combination would have a system having one or more compression techniques in a database and being used for

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various kinds of data (Friederich – col. 3, lines 50-67 and col. 4, lines 1-25) in the searching the data in the compressed data format environment.

With respect to claims 2-5, Friederich discloses the data compressing means compresses a particular attribution record group, which is to be searched, with a first compression method, and compresses the other attribution record groups, which are different from the particular attribution record group, with a second compression method, the first compression method compresses the attribution record group so that the attribution record group after being compressed can be decompressed faster than that compressed by using the second compression method, and the second compression method compresses the attribution record group so that a compression rate is higher than that of the first compression method (col. 19, lines 12-67, col. 20, lines 1-67, col. 21, lines 34-67, col. 22, lines 1-67, col. 23, lines 15-67, col. 24, lines 1-58); data decompressing means for decompressing a particular attribution record group, which is to be searched, when a search request for searching the database file is received; and searching means for searching for a target record containing a search key in the particular attribution record group, wherein the data decompressing means further decompresses the other attribution record groups, which are different from the particular attribution record group, when the searching means finds the target record; the data decompressing means reads out only the particular attribution record group from the database file, and decompresses only the particular attribution record group, when the search request is received; and the data decompressing means further decompresses the other

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attribution record groups, when the searching means finds the target record; and data decompressing means for decompressing a particular attribution record group, which includes a target record to be retrieved, when a retrieve request for retrieving the target record from the database file is received (col. 18, lines 8-57, col. 31, lines 50-67, col. 32, lines 36-67 and col. 33, lines 1-62).

With respect to claim 6, Friederich discloses attribution record group, according to attributions defined in the database, and for making plural attribution record groups corresponding to each of the attributions; data compressing means for compressing only the other attribution record groups, which are different from a particular attribution record group to be searched, in the plural attribution record groups; and file forming means for combining the other attribution record groups, which are compressed by the data compressing means, and the particular attribution record group, so as to forth a database file (abstract, col. 1, lines 8-59, col. 2, lines 1-61, col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63).

Friederich does not explicitly indicate, "classifying data which is requested to be stored into a database."

However, Stolfo discloses classified segments for the database to be accessed as claimed (col. 16, lines 50-67 and col. 17, lines 1-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Friederich with the

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teachings of Stolfo so as to have a database managing apparatus having compressed and decompressed data and searching data because the combination would have a system having one or more compression techniques in a database and being used for various kinds of data (Friederich – col. 3, lines 50-67 and col. 4, lines 1-25) in the searching the data in the compressed data format environment.

With respect to claims 7-10, Friederich discloses data compressing means compresses the other attribution record groups in a unit of each of the attribution record groups; and searching means for searching for a target record containing a search key in the particular attribution record group, and data decompressing means for decompresses the other attribution record groups, when the searching means finds the target record; data decompressing means reads out only the particular attribution record group from the database file, and decompresses only the particular attribution record group; and the data decompressing means further decompresses the other attribution record groups, when the searching means finds the target record; and data decompressing means for decompressing a particular attribution record group, which includes a target record to be retrieved, when a retrieve request for retrieving the target record from the database file is received (col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67; col. 18, lines 8-57, col. 31, lines 50-67, col. 32, lines 36-67 and col. 33, lines 1-62).

With respect to claim 11-12, Friederich discloses the data compressing means further compresses a specific record string, which appears in the attribution record groups frequently compared to the other record string, to reduce a size of the attribution

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record groups (col. 19, lines 60-67 and col. 20, lines 1-39); and the data compressing means further compresses a specific record string, which appears in the attribution record groups frequently compared to the other record string, to reduce a size of the attribution record groups (col. 19, lines 60-67 and col. 20, lines 1-39).

Claim 19 is essentially the same as claim 1 except that it is directed to a method rather than an apparatus ('149 of abstract, col. 1, lines 8-59, col. 2, lines 1-61. col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; 780 of col. 16, lines 50-67 and col. 17, lines 1-67), and is rejected for the same reason as applied to the claim 1 hereinabove.

Claims 20-23 are essentially the same as claims 2-5 except that it is directed to a method rather than an apparatus (col. 19, lines 12-67, col. 20, lines 1-67, col. 21, lines 34-67, col. 22, lines 1-67, col. 23, lines 15-67, col. 24, lines 1-58; col. 18, lines 8-57, col. 31, lines 50-67, col. 32, lines 36-67 and col. 33, lines 1-62), and is rejected for the same reason as applied to the claims 2-5 hereinabove.

Claim 24 is essentially the same as claim 6 except that it is directed to a method rather than an apparatus ('149 of abstract, col. 1, lines 8-59, col. 2, lines 1-61. col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; 780 of col. 16, lines 50-67 and col. 17, lines 1-67), and is rejected for the same reason as applied to the claim 1 hereinabove.

Claims 25-28 are essentially the same as claims 7-10 except that it is directed to a method rather than an apparatus (col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67; col. 18, lines 8-57, col. 31, lines 50-67, col. 32, lines 36-67 and col. 33, lines 1-62), and is rejected for the same reason as applied to the claims 7-10 hereinabove.

Claims 29-30 are essentially the same as claims 11-12 except that it is directed to a method rather than an apparatus (col. 19, lines 60-67 and col. 20, lines 1-39; col. 19, lines 60-67 and col. 20, lines 1-39), and is rejected for the same reason as applied to the claims 11-12 hereinabove.

5. Claims 13-18 and 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,393,149 issued to Friederich et al. (herein Friederich) in view of US Patent No. 6,415,280 Farber et al. (herein Farber).

With respect to claim 13, Friederich discloses retrieving a target record to be searched from a database file, which is made up of plural attribution record groups each of which is compressed in a unit of each of the attribution record groups, the database record retrieving apparatus comprising: data decompressing means for decompressing a particular attribution record group, which is to be searched, when a search request for searching the database file is received; and searching means for searching for a target record containing a search key in the particular attribution record group, wherein the data decompressing means further decompresses the other attribution record groups, which are different from the particular attribution record group, when the searching

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means finds the target record (col. 1, lines 8-59, col. 2, lines 1-61, col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63).

Friederich does not explicitly indicate, a search request for searching the data file is received.”

However, Farber discloses search request for searching the requested file as claimed (col. 17, lines 4-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Friederich with the teachings of Farber so as to have a database record retrieving apparatus having compressed and decompressed data and searching data because the combination would have a system having one or more compression techniques in a database and being used for various kinds of data (Friederich – col. 3, lines 50-67 and col. 4, lines 1-25) in the searching the data in the compressed data format environment.

With respect to claims 14-15, Friederich discloses a database record retrieving as discussed in claim 13, also Friederich discloses data decompressing techniques as claimed (col. 18, lines 8-40, col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63).

Friederich does not explicitly indicate, a search request for searching the data file is received.”

However, Farber discloses search request for searching the requested file as claimed (col. 17, lines 4-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Friederich with the teachings of Farber so as to have a database record retrieving apparatus having compressed and decompressed data and searching data because the combination would have a system having one or more compression techniques in a database and being used for various kinds of data (Friederich – col. 3, lines 50-67 and col. 4, lines 1-25) in the searching the data in the compressed data format environment.

With respect to claim 16, Friederich discloses retrieving a target record to be searched from a database file, which is made up of plural attribution record groups wherein only the other attribution record groups, which are different from a particular attribution record group to be searched, are compressed, the database record retrieving apparatus comprising: data decompressing means for decompressing a particular attribution record group, which is to be searched, when a search request for searching the database file is received; and searching means for searching for a target record containing a search key in the particular attribution record group, wherein the data decompressing means further decompresses the other attribution record groups, which are different from the particular attribution record group, when the searching means finds the target record (col. 1, lines 8-59, col. 2, lines 1-61, col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines

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1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63).

Friederich does not explicitly indicate, a search request for searching the data file is received."

However, Farber discloses search request for searching the requested file as claimed (col. 17, lines 4-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Friederich with the teachings of Farber so as to have a database record retrieving apparatus having compressed and decompressed data and searching data because the combination would have a system having one or more compression techniques in a database and being used for various kinds of data (Friederich – col. 3, lines 50-67 and col. 4, lines 1-25) in the searching the data in the compressed data format environment.

With respect to claims 17-18, Friederich discloses searching means for searching for a target record containing a search key in the particular attribution record group, and data decompressing means for decompresses the other attribution record groups, when the searching means finds the target record; and the database file is made up so that each of the plural attribution record groups is compressed in a unit of each of the attribution record groups, the data decompressing means reads out only the particular attribution record group from the database file, and decompresses only the particular attribution record group; and the data decompressing means further decompresses the other attribution record groups, when the searching means finds the target record (col.

3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63).

Claim 31 is essentially the same as claim 13 except that it is directed to a method rather than an apparatus ('149 of col. 1, lines 8-59, col. 2, lines 1-61, col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63; '280 of col. 17, lines 4-30), and is rejected for the same reason as applied to the claim 13 hereinabove.

Claims 32-33 are essentially the same as claims 14-15 except that it is directed to a method rather than an apparatus (col. 18, lines 8-40, col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63; col. 17, lines 4-30), and is rejected for the same reason as applied to the claims 14-15 hereinabove.

Claim 34 is essentially the same as claim 16 except that it is directed to a method rather than an apparatus ('149 of col. 1, lines 8-59, col. 2, lines 1-61, col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19, lines 1-67 and col. 20, lines 1-54; col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63; '280 of col. 17, lines 4-30), and is rejected for the same reason as applied to the claim 16 hereinabove.

Claims 35-36 are essentially the same as claims 17-18 except that it is directed to a method rather than an apparatus (col. 3, lines 12-67, col. 4, lines 1-67, see figs 8-11c, col. 5, lines 65-67, col. 6, lines 1-64, col. 17, lines 22-67, col. 18, lines 1-67, col. 19,

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lines 1-67 and col. 20, lines 1-54; col. 31, lines 52-67, col. 32, lines 1-67 and col. 33, lines 1-63), and is rejected for the same reason as applied to the claims 17-18 hereinabove.

Contact Information

6. Any inquiry concerning this communication should be directed to Anh Ly whose telephone number is (703) 306-4527. The examiner can be reached on Monday - Friday from 8:00 AM to 4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's supervisor, Kim Vu, can be reached on (703) 305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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or faxed to:

(703) 746-7238 (after Final Communication)

or:

(703) 746-7239 (for formal communications intended for entry)

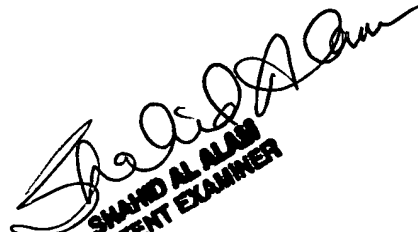
or:

(703) 746-7240 (for informal or draft communications, or Customer Service Center, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

AL


SHAHID AL ALAM
PATENT EXAMINER

Jul. 24th, 2002.